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EXAMINER	
O CONNOR, BRIAN T	
ART UNIT	PAPER NUMBER
2475	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com

Office Action Summary	Application No.	Applicant(s)	
	10/723,346	WALTON ET AL.	
	Examiner	Art Unit	
	Brian O'Connor	2475	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 September 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-8 and 10-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-8 and 10-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application.
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This office action is in response to applicant's amendment filed on 9/29/2010.

2. Claims 1, 3-8, 10-38 are currently pending.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 2, 4-6, 23, 25-32, and 35 rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (US 7,269,423; hereafter Lee) in view of Gilbert et al. (US 6,016,311; hereafter Gilbert).

With respect to claim 1, Lee discloses a scheduler (BTS-a of Figure 1) for a communication system (Abstract) which receives requests from remote devices (ms1 of Figure 1) and refers to a profile (40 of Figure 1; column 4, lines 27-38) to determine the data rate for the remote device (520 of Figure 9). The scheduler also has a first logic (504 of Figure 9) to decide if the remote device has a requested capacity commitment from the profile and a second logic (506, 512 of Figure 9) to provide data rate or capacity for the remote device (508, 514 of Figure 9; column 7, lines 44-67; column 8, lines 14-23). Lee further discloses the capacity is modified to indicate flows that have been admitted (412 of Figure 5; column 6, lines 48-54; 514 of Figure 9; column 9, lines

10-18) wherein capacity is allocated for remote devices with capacity commitments in the admission profile before remote devices without capacity commitments in the admission profile (column 7, lines 44-67). Lee further discloses limiting capacity commitments before remaining capacity is allocated to any unsatisfied data transmission indicators (column 9, lines 3-18; column 8, lines 56-64).

Lee does not disclose an expected data requirement comprising an average value in an admission profile.

Gilbert discloses an expected data requirement comprising an average value in an admission profile (column 8, lines 1-14).

Gilbert teaches a benefit of flexible user support and coordination by have an average value as part of a user admission profile (column 5, lines 14-22). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the profiles with average data rates as taught by Gilbert with the method and system of Lee.

With respect to claim 4, Lee further discloses a number of service levels (column 4, lines 50-54).

With respect to claim 5, Lee further discloses the remote devices will include a QoS indicator (Figure 8A, Figure 8B) and the allocated data rate will include the previous allocations from other remote devices (column 6, lines 42-57).

With respect to claim 6, Lee further discloses a number of QoS levels (column 5, lines 3-14).

With respect to claim 23, Lee discloses a method where a scheduler (BTS-a of Figure 1) for a communication system (Abstract) receives requests from remote devices (ms1 of Figure 1) and refers to a profile (40 of Figure 1; column 4, lines 27-38) to determine the data rate for the remote device (520 of Figure 9). The scheduler also has a first logic (504 of Figure 9) to decide if the remote device has a requested capacity commitment from the profile and a second logic (506, 512 of Figure 9) to provide data rate or capacity for the remote device (508, 514 of Figure 9; column 7, lines 44-67; column 8, lines 14-23). Lee further discloses the capacity is modified to indicate flows that have been admitted (412 of Figure 5; column 6, lines 48-54; 514 of Figure 9; column 9, lines 10-18) wherein capacity is allocated for remote devices with capacity commitments in the admission profile before remote devices without capacity commitments in the admission profile (column 7, lines 44-67). Lee further discloses limiting capacity commitments before remaining capacity is allocated to any unsatisfied data transmission indicators (column 9, lines 3-18; column 8, lines 56-64).

Lee does not disclose an expected data requirement comprising an average value in an admission profile.

Gilbert discloses an expected data requirement comprising an average value in an admission profile (column 8, lines 1-14).

Gilbert teaches a benefit of flexible user support and coordination by have an average value as part of a user admission profile (column 5, lines 14-22). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to

use the profiles with average data rates as taught by Gilbert with the method and system of Lee.

With respect to claim 25, Lee discloses a method where a scheduler (BTS-a of Figure 1) for a communication system (Abstract) receives requests from remote devices (ms1 of Figure 1) and refers to a profile (40 of Figure 1; column 4, lines 27-38) to determine the data rate for the remote device (520 of Figure 9). The scheduler also has a first logic (504 of Figure 9) to decide if the remote device has a requested capacity commitment from the profile and a second logic (506, 512 of Figure 9) to provide data rate or capacity for the remote device (508, 514 of Figure 9; column 7, lines 44-67; column 8, lines 14-23). The communication system operates on a time-division manner because the data services are related to packet data traffic, thus the scheduler is deciding data rates for a number of time periods. Lee further discloses the capacity is modified to indicate flows that have been admitted (412 of Figure 5; column 6, lines 48-54; 514 of Figure 9; column 9, lines 10-18) wherein capacity is allocated for remote devices with capacity commitments in the admission profile before remote devices without capacity commitments in the admission profile (column 7, lines 44-67). Lee further discloses limiting capacity commitments before remaining capacity is allocated to any unsatisfied data transmission indicators (column 9, lines 3-18; column 8, lines 56-64).

Lee does not disclose an expected data requirement comprising an average value in an admission profile.

Gilbert discloses an expected data requirement comprising an average value in an admission profile (column 8, lines 1-14).

Gilbert teaches a benefit of flexible user support and coordination by have an average value as part of a user admission profile (column 5, lines 14-22). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the profiles with average data rates as taught by Gilbert with the method and system of Lee.

With respect to claim 26, Lee further discloses sending service and QoS indicators from remote devices (Figure 8A, Figure 8B).

With respect to claim 27, Lee further discloses sending service and QoS indicators from remote devices (Figure 8A, Figure 8B) and are required when the remote devices had data in their transmission queues.

With respect to claim 28, Lee further discloses a number of service levels (column 4, lines 50-54).

With respect to claim 29, Lee further discloses a number of QoS levels (column 5, lines 3-14) and must allocate data rates in accordance with the different QoS levels.

With respect to claim 30, Lee discloses a method where a scheduler (BTS-a of Figure 1) for a communication system (Abstract) receives requests from remote devices (ms1 of Figure 1) and refers to a profile (40 of Figure 1; column 4, lines 27-38) to determine the data rate for the remote device (520 of Figure 9). The scheduler also has

a first logic (504 of Figure 9) to decide if the remote device has a requested capacity commitment from the profile and a second logic (506, 512 of Figure 9) to provide data rate or capacity for the remote device (508, 514 of Figure 9; column 7, lines 44-67; column 8, lines 14-23). Lee further discloses sending grant messages (524 of Figure 9; column 9, lines 26-34). Lee further discloses the capacity is modified to indicate flows that have been admitted (412 of Figure 5; column 6, lines 48-54; 514 of Figure 9; column 9, lines 10-18). Lee further discloses limiting capacity commitments before remaining capacity is allocated to any unsatisfied data transmission indicators (column 9, lines 3-18; column 8, lines 56-64).

Lee does not disclose an expected data requirement comprising an average value in an admission profile.

Gilbert discloses an expected data requirement comprising an average value in an admission profile (column 8, lines 1-14).

Gilbert teaches a benefit of flexible user support and coordination by have an average value as part of a user admission profile (column 5, lines 14-22). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the profiles with average data rates as taught by Gilbert with the method and system of Lee.

With respect to claim 31, The Examiner places notice that the limitation "means for receiving" and "means for granting" recited in claim 31 is being treated under 35 USC 112, sixth paragraph.

Lee discloses a scheduler (BTS-a of Figure 1), with a RF module (216 of Figure 4; viewed as equivalent to receiver in specification), for a communication system (Abstract) which receives requests from remote devices (ms1 of Figure 1) and refers to a profile (40 of Figure 1; column 4, lines 27-38; viewed as equivalent to processor in specification) to determine the data rate for the remote device (520 of Figure 9). The scheduler also has a first logic (504 of Figure 9) to decide if the remote device has a requested capacity commitment from the profile and a second logic (506, 512 of Figure 9) to provide data rate or capacity for the remote device (508, 514 of Figure 9; column 7, lines 44-67; column 8, lines 14-23). Lee further discloses the capacity is modified to indicate flows that have been admitted (412 of Figure 5; column 6, lines 48-54; 514 of Figure 9; column 9, lines 10-18) wherein capacity is allocated for remote devices with capacity commitments in the admission profile before remote devices without capacity commitments in the admission profile (column 7, lines 44-67). Lee further discloses limiting capacity commitments before remaining capacity is allocated to any unsatisfied data transmission indicators (column 9, lines 3-18; column 8, lines 56-64).

Lee does not disclose an expected data requirement comprising an average value in an admission profile.

Gilbert discloses an expected data requirement comprising an average value in an admission profile (column 8, lines 1-14).

Gilbert teaches a benefit of flexible user support and coordination by have an average value as part of a user admission profile (column 5, lines 14-22). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to

use the profiles with average data rates as taught by Gilbert with the method and system of Lee.

With respect to claim 32, Lee further discloses the profile contents a table with a group of rows (column 1, lines 45-55) to assign QoS values to remote devices (column 4, lines 27-38).

With respect to claim 35, The Examiner places notice that the limitation "means for receiving" and "means for granting" recited in claim 35 is being treated under 35 USC 112, sixth paragraph.

Lee discloses a scheduler (BTS-a of Figure 1; viewed as equivalent to the processor in specification), with a RF module (216 of Figure 4; viewed as equivalent to receiver in specification), for a communication system (Abstract) which receives requests from remote devices (ms1 of Figure 1) and refers to a profile (40 of Figure 1; column 4, lines 27-38; viewed as equivalent to processor in specification) to determine the data rate for the remote device (520 of Figure 9). The scheduler also has a first logic (504 of Figure 9) to decide if the remote device has a requested capacity commitment from the profile and a second logic (506, 512 of Figure 9) to provide data rate or capacity for the remote device (508, 514 of Figure 9; column 7, lines 44-67; column 8, lines 14-23). Lee further discloses the capacity is modified to indicate flows that have been admitted (412 of Figure 5; column 6, lines 48-54; 514 of Figure 9; column 9, lines 10-18) wherein capacity is allocated for remote devices with capacity

commitments in the admission profile before remote devices without capacity commitments in the admission profile (column 7, lines 44-67). Lee further discloses limiting capacity commitments before remaining capacity is allocated to any unsatisfied data transmission indicators (column 9, lines 3-18; column 8, lines 56-64).

Lee does not disclose an expected data requirement comprising an average value in an admission profile.

Gilbert discloses an expected data requirement comprising an average value in an admission profile (column 8, lines 1-14).

Gilbert teaches a benefit of flexible user support and coordination by have an average value as part of a user admission profile (column 5, lines 14-22). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the profiles with average data rates as taught by Gilbert with the method and system of Lee.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Gilbert and further in view of Meggers et al. (US 6,728,270; hereafter Meggers).

With respect to claim 7, Lee fails to disclose a best-effort service levels.

Meggers discloses a system that uses best-effort queues (250, 260 of Figure 10; column 10, lines 20-25).

Meggers teaches the benefit of an improved QoS by using a best effort queue for non-QoS data and an EDF-queue for QoS data (210 of Figure 5). Thus, it would have

been obvious to one of ordinary skill in the art at the time of the invention to use the best effort queues of Meggers with the scheduler of Lee.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Gilbert and further in view of Dulin et al. (US 6,567,387; hereafter Dulin).

With respect to claim 3, Lee fails to disclose allocating data rate or capacity in order of increasing size of unallocated portion of a data transmission indicator.

Dulin discloses a communication system for scheduling data transmission that has a decision (1320 of Figure 13) allocates blocks in order of priority from the transmission request (column 13, lines 35-52; where the block weight is used to allocate the un-used blocks is a frame).

Dulin teaches the benefit of a more efficient and adaptive scheduling system by including current transmission conditions (column 2, lines 33-41). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the decision rule in Dulin's system with the system of Lee.

7. Claims 8, 9, 11, 13, 14, 15-17, 19, 20, 22, 24, 33, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Gilbert and further in view of Haartsen (US 6,650,630).

With respect to claim 8, Lee discloses a base station (BTS-a of Figure 1) with a scheduler (214 of Figure 4) for a communication system (Abstract) which receives requests from remote devices (ms1 of Figure 1) and refers to a profile (40 of Figure 1;

column 4, lines 27-38) to determine the data rate for the remote device (520 of Figure 9). The scheduler also has a first logic (504 of Figure 9) to decide if the remote device has a requested capacity commitment from the profile and a second logic (506, 512 of Figure 9) to provide data rate or capacity for the remote device (508, 514 of Figure 9; column 7, lines 44-67; column 8, lines 14-23). Lee further discloses the capacity is modified to indicate flows that have been admitted (412 of Figure 5; column 6, lines 48-54; 514 of Figure 9; column 9, lines 10-18) wherein capacity is allocated for remote devices with capacity commitments in the admission profile before remote devices without capacity commitments in the admission profile (column 7, lines 44-67). Lee further discloses limiting capacity commitments before remaining capacity is allocated to any unsatisfied data transmission indicators (column 9, lines 3-18; column 8, lines 56-64).

Lee does not disclose an expected data requirement comprising an average value in an admission profile.

Gilbert discloses an expected data requirement comprising an average value in an admission profile (column 8, lines 1-14).

Gilbert teaches a benefit of flexible user support and coordination by have an average value as part of a user admission profile (column 5, lines 14-22). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the profiles with average data rates as taught by Gilbert with the method and system of Lee.

Lee does not disclose admission including a plurality of time periods.

Haartsen discloses a time-domain division system that allocates bandwidth over a number of time slots (Figure 7b; Figure 8a; column 7, lines 34-46). Bandwidth allocation profiles are provided for individual mobile device users (column 11, lines 47-51).

Haartsen realizes the benefit of greater throughput for all the remote terminals by scheduling or packing the transmission requests (column 12, lines 12-17). Thus it would have been obvious to a person having ordinary skill in the art at the time of the invention to use the method of Haartsen with the device and method of Lee.

With respect to claim 11, Lee further discloses a RF module (216 of Figure 4; viewed as equivalent to receiver in specification) to receive requests.

With respect to claim 13, Lee further discloses a RF module (216 of Figure 4; viewed as equivalent to receiver in specification) to transmit grants (524 of Figure 9; column 9, lines 26-34).

With respect to claim 15, Lee further discloses a number of service levels (column 4, lines 50-54).

With respect to claim 16, Lee further discloses the remote devices will include a QoS indicator (Figure 8A, Figure 8B) and the allocated data rate will include the previous allocations from other remote devices (column 6, lines 42-57).

With respect to claim 17, Lee further discloses a number of QoS levels (column 5, lines 3-14).

With respect to claim 19, Lee further discloses the remote devices will include a QoS indicator (Figure 8A, Figure 8B) and the allocated data rate will include the

previous allocations from other remote devices (column 6, lines 42-57), then allocating a remaining data rate capacity (514 of Figure 9), and then allocating in response to a second service level (516, 520 of Figure 9).

With respect to claim 20, Lee further discloses a number of QoS levels (column 5, lines 3-14) and must allocate data rates in accordance with the different QoS levels.

With respect to claim 22, Lee discloses a scheduler (BTS-a of Figure 1) for a communication system (Abstract) which receives requests from remote devices (ms1 of Figure 1) and refers to a profile (40 of Figure 1; column 4, lines 27-38) to determine the data rate for the remote device (520 of Figure 9). The scheduler also has a first logic (504 of Figure 9) to decide if the remote device has a requested capacity commitment from the profile and a second logic (506, 512 of Figure 9) to provide data rate or capacity for the remote device (508, 514 of Figure 9; column 7, lines 44-67; column 8, lines 14-23). Lee further discloses the capacity is modified to indicate flows that have been admitted (412 of Figure 5; column 6, lines 48-54; 514 of Figure 9; column 9, lines 10-18) wherein capacity is allocated for remote devices with capacity commitments in the admission profile before remote devices without capacity commitments in the admission profile (column 7, lines 44-67). Lee further discloses limiting capacity commitments before remaining capacity is allocated to any unsatisfied data transmission indicators (column 9, lines 3-18; column 8, lines 56-64).

Lee does not disclose an expected data requirement comprising an average value in an admission profile.

Gilbert discloses an expected data requirement comprising an average value in an admission profile (column 8, lines 1-14).

Gilbert teaches a benefit of flexible user support and coordination by have an average value as part of a user admission profile (column 5, lines 14-22). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the profiles with average data rates as taught by Gilbert with the method and system of Lee.

Lee does not disclose admission including a plurality of time periods.

Haartsen discloses a time-domain division system that allocates bandwidth over a number of time slots (Figure 7b; Figure 8a; column 7, lines 34-46). Bandwidth allocation profiles are provided for individual mobile device users (column 11, lines 47-51).

Haartsen realizes the benefit of greater throughput for all the remote terminals by scheduling or packing the transmission requests (column 12, lines 12-17). Thus it would have been obvious to a person having ordinary skill in the art at the time of the invention to use the method of Haartsen with the device and method of Lee.

Haartsen realizes the benefit of greater throughput for all the remote terminals by scheduling or packing the transmission requests (column 12, lines 12-17). Thus it would have been obvious to a person having ordinary skill in the art at the time of the invention to use the method of Haartsen with the device and method of Lee.

With respect to claims 14 and 24, Lee further discloses a BTS controller (211 of Figure 4) and that the data rate is determined by the current data rate in the system

(column 9, lines 3-18; column 8, lines 56-64). Lee further discloses conditionally admitting the flow when the flow parameters, if combined with the admission profile, would not exceed the system capacity (516, 510 of Figure 9).

Lee does not disclose modifying an admission profile to incorporate a data flow.

Haartsen, in an invention for a wireless base station communicating with several remote terminals (Abstract), discloses an admission profile generated by the collection of transmission requests from the remote terminals (column 11, lines 46-51; where the profile is changed depending on the group of transmission requests).

Haartsen realizes the benefit of greater throughput for all the remote terminals by scheduling or packing the transmission requests (column 12, lines 12-17). Thus it would have been obvious to a person having ordinary skill in the art at the time of the invention to use the method of Haartsen with the device and method of Lee.

With respect to claim 33, Lee fails to disclose an admission profile created from a duty factor and frame phase associated with each remote device.

Haartsen discloses an admission profile generated by the collection of transmission requests from the remote terminals (column 11, lines 46-51). The admission profile contains a bandwidth ratios (column 11, lines 52-64; where the bandwidth ratios are viewed as equivalent to duty factors) and frequency assignments (column 11, lines 9-15).

Haartsen realizes the benefit of greater throughput for all the remote terminals by scheduling or packing the transmission requests (column 12, lines 12-17). Thus it

would have been obvious to a person having ordinary skill in the art at the time of the invention to use the method of Haartsen with the device of Lee.

With respect to claim 34, The Examiner places notice that the limitation "means for receiving", "means for admitting", and "means for modifying" recited in claim 34 is being treated under 35 USC 112, sixth paragraph.

Lee further discloses a RF module (216 of Figure 4; viewed as equivalent to receiver in specification), and a profile server (40 of Figure 1; column 4, lines 27-38; viewed as equivalent to processor in specification for admitting and modifying) to determine the data rate for the remote device (520 of Figure 9).

Lee does not disclose modifying an admission profile to incorporate a data flow.

Haartsen, in an invention for a wireless base station communicating with several remote terminals (Abstract), discloses an admission profile generated by the collection of transmission requests from the remote terminals (column 11, lines 46-51; where the profile is changed depending on the group of transmission requests).

Haartsen realizes the benefit of greater throughput for all the remote terminals by scheduling or packing the transmission requests (column 12, lines 12-17). Thus it would have been obvious to a person having ordinary skill in the art at the time of the invention to use the method of Haartsen with the device and method of Lee.

8. Claims 12 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view Gilbert and further in view of Haartsen and further in view of Meggers.

With respect to claims 12 and 18, Lee fails to disclose a best-effort service levels.

Meggers discloses a system that uses best-effort queues (250, 260 of Figure 10; column 10, lines 20-25).

Meggers teaches the benefit of an improved QoS by using a best effort queue for non-QoS data and an EDF-queue for QoS data (210 of Figure 5). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the best effort queues of Meggers with the scheduler of Lee.

9. Claims 10 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Gilbert and further in view of Haartsen and further in view of Dulin.

With respect to claims 10 and 21, Lee fails to disclose allocating data rate or capacity in order of increasing size of unallocated portion of a data transmission indicator.

Dulin discloses a communication system for scheduling data transmission that has a decision (1320 of Figure 13) allocates blocks in order of priority from the transmission request (column 13, lines 35-52; where the block weight is used to allocate the un-used blocks is a frame).

Dulin teaches the benefit of a more efficient and adaptive scheduling system by including current transmission conditions (column 2, lines 33-41). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the decision rule in Dulin's system with the system of Lee.

10. Claims 36 and 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Gilbert and further in view of Kumar et al. (US 7,085,279 hereafter Kumar).

With respect to claim 36, Lee discloses a method where a scheduler (BTS-a of Figure 1) for a communication system (Abstract) receives requests from remote devices (ms1 of Figure 1) and refers to a profile (40 of Figure 1; column 4, lines 27-38) to determine the data rate for the remote device (520 of Figure 9). The scheduler also has a first logic (504 of Figure 9) to decide if the remote device has a requested capacity commitment from the profile and a second logic (506, 512 of Figure 9) to provide data rate or capacity for the remote device (508, 514 of Figure 9; column 7, lines 44-67; column 8, lines 14-23). Lee further discloses sending grant messages (524 of Figure 9; column 9, lines 26-34) wherein capacity is allocated for remote devices with capacity commitments in the admission profile before remote devices without capacity commitments in the admission profile (column 7, lines 44-67). Lee further discloses limiting capacity commitments before remaining capacity is allocated to any unsatisfied data transmission indicators (column 9, lines 3-18; column 8, lines 56-64).

Lee does not disclose an expected data requirement comprising an average value in an admission profile.

Gilbert discloses an expected data requirement comprising an average value in an admission profile (column 8, lines 1-14).

Gilbert teaches a benefit of flexible user support and coordination by have an average value as part of a user admission profile (column 5, lines 14-22). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the profiles with average data rates as taught by Gilbert with the method and system of Lee.

However, Lee does not disclose a computer readable media.

Kumar, in the same field of endeavor, discloses a computer readable medium storing a program to perform a connection setup over a packet network in conjunction with a switching network. The computer-readable medium is an electronic, magnetic, optical, or other physical device or means that can be contain or store a computer program for use by or in connection with a computer-related system or method (column 7, lines 51-67). One skilled in the art would have clearly recognized that the method of Lee would have been implemented in a software module. The implemented software would perform the function with less expense and more flexibility. Therefore, it would have been obvious to have use the technique in Lee as-is and implement it as taught by Kumar in order to reduce cost and improve the adaptability and flexibility of the networking system.

With respect to claim 38, Lee discloses a scheduler (BTS-a of Figure 1; viewed as equivalent to the processor in specification), with a RF module (216 of Figure 4;), for a communication system (Abstract) which receives requests from remote devices (ms1 of Figure 1) and refers to a profile (40 of Figure 1; column 4, lines 27-38) to determine the data rate for the remote device (520 of Figure 9). The scheduler also has a first

logic (504 of Figure 9) to decide if the remote device has a requested capacity commitment from the profile and a second logic (506, 512 of Figure 9) to provide data rate or capacity for the remote device (508, 514 of Figure 9; column 7, lines 44-67; column 8, lines 14-23). Lee further discloses the capacity is modified to indicate flows that have been admitted (412 of Figure 5; column 6, lines 48-54; 514 of Figure 9; column 9, lines 10-18) wherein capacity is allocated for remote devices with capacity commitments in the admission profile before remote devices without capacity commitments in the admission profile (column 7, lines 44-67). Lee further discloses limiting capacity commitments before remaining capacity is allocated to any unsatisfied data transmission indicators (column 9, lines 3-18; column 8, lines 56-64).

Lee does not disclose an expected data requirement comprising an average value in an admission profile.

Gilbert discloses an expected data requirement comprising an average value in an admission profile (column 8, lines 1-14).

Gilbert teaches a benefit of flexible user support and coordination by have an average value as part of a user admission profile (column 5, lines 14-22). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the profiles with average data rates as taught by Gilbert with the method and system of Lee.

However, Lee does not disclose a computer readable media.

Kumar, in the same field of endeavor, discloses a computer readable medium storing a program to perform a connection setup over a packet network in conjunction

with a switching network. The computer-readable medium is an electronic, magnetic, optical, or other physical device or means that can be contain or store a computer program for use by or in connection with a computer-related system or method (column 7, lines 51-67). One skilled in the art would have clearly recognized that the method of Lee would have been implemented in a software module. The implemented software would perform the function with less expense and more flexibility. Therefore, it would have been obvious to have use the technique in Lee as-is and implement it as taught by Kumar in order to reduce cost and improve the adaptability and flexibility of the networking system.

11. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Gilbert and further in view of Kumar and further in view of Haartsen.

With respect to claim 37, Lee further discloses a BTS controller (211 of Figure 4) and that the data rate is determined by the current data rate in the system (column 9, lines 3-18; column 8, lines 56-64).

Lee does not disclose modifying an admission profile to incorporate a data flow.

Haartsen, in an invention for a wireless base station communicating with several remote terminals (Abstract), discloses an admission profile generated by the collection of transmission requests from the remote terminals (column 11, lines 46-51; where the profile is changed depending on the group of transmission requests).

Haartsen realizes the benefit of greater throughput for all the remote terminals by scheduling or packing the transmission requests (column 12, lines 12-17). Thus it

would have been obvious to a person having ordinary skill in the art at the time of the invention to use the method of Haartsen with the device and method of Lee.

Response to Arguments

12. Applicant's arguments with respect to claims 1-38 have been considered but are moot in view of the new ground(s) of rejection necessitated by Applicant's amended claims.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian O'Connor whose telephone number is (571)270-1081. The examiner can normally be reached on M-F, 9AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dang Ton can be reached on 571-272-3171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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December 1, 2010
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